AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings,
of claims in the application:

1.   (Currently Amended) A method for providing diversity handover,
{DHO}, related instructions to a first DHO tree node, ~~e.g. a Node B,~~ that is a
part of or is planned to be a part of a DHO connection in a mobile
telecommunication network, wherein the DHO functionality is distributed to
one or a plurality of DHO nodes, ~~such as~~ including a Radio Network Controller,
{RNC}, and its connected Node Bs, in ~~said~~ the network, the method comprising:

[[ ]]including in a first signaling message one or more transport layer
addresses and one or more transport bearer reference parameters in order to
direct one or more data flows between the RNC and a mobile station of the
DHO connection, and

[[ ]]sending ~~said~~ the first signaling message to the first DHO tree node,

wherein the DHO functionality performed by the first DHO tree node
comprises splitting of downlink data flows and combining of uplink data flows.

2.   (Currently Amended) The method according to claim 1, wherein the
including step comprises ~~the further step of~~:

[[ ]]replacing the transport layer address and transport bearer reference
parameter of ~~an~~ the RNC by ~~the~~ transport layer address and transport bearer
reference parameter of a DHO tree node that is hierarchically higher than ~~said~~

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the first DHO tree node in a regular signaling message sent to the first DHO

tree node in order to direct a data flow between said-the first DHO tree node

and said-the higher DHO tree node in the-a DHO tree node hierarchy.

3.   (Current Amended) The method according to claim 1, wherein the

including-step comprises the further step of:

[[-]]including one or more transport layer addresses and one or more

transport bearer reference parameters of one or more DHO tree node(s) that are

hierarchically lower than the first DHO tree node in a signalling message sent

to the first DHO tree node in order to direct the one or more data flows between

said the first DHO tree node and said-the one or more lower DHO tree node(s)

in the-a DHO tree node hierarchy.

4.   (Currently Amended) The method according to claim 1, wherein

said transport layer addresses are IP addresses and said transport bearer

reference parameters are User Datagram Protocol (UDP) ports.

5.   (Currently Amended) The method according to claim 1, wherein

said transport layer addresses are ATM addresses and said transport bearer

reference parameters are Served User Generated Reference (SUGR) parameters.

6.   (Current Amended) The method according to claim 1, further
comprising the step of:

[[ ]]including in the first signaling message Quality of Service (QoS)
indications for the <u>one or more</u> data flow(s) to be directed.

7.   (Current Amended) The method according to claim 1, further
comprising the step of:

[[ ]]including timing parameters in the first signaling message to be used
in the uplink combining procedure in the DHO tree node receiving said the first
signaling message.

8.   (Current Amended) The method according to claim 1, further
comprising the step of:

[[ ]]including a time indication in the first signaling message indicating
when the DHO related instructions in the first signaling message are to be
effectuated in the DHO tree node receiving said the first signaling message.

9.   (Currently Amended) The method according to claim 8, wherein
said time indication is a connection frame number[[,]] (CFN)[[,]] pertaining to a
Dedicated Channel Frame Protocol[[,]] (DCH FP)[[,]] in a UMTS Terrestrial Radio
Access Network[[,]] (UTRAN).

10.   (Current Amended) The method according to claim 1, wherein said first signaling message is sent from a~the RNC.

11.   (Currently Amended) The method according to claim 10, wherein said first signaling message is a Node B Application Part[[,]] (NBAP)[[,]] message.

12.   (Current Amended) The method according to claim 10, wherein the step of sending said first signaling message is triggered by a second signaling message received from a second RNC.

13.   (Currently Amended) The method according to claim 12, wherein the second signaling message is a <u>Radio Network Subsystem Application Part (RNSAP)</u> message.

14.   (Current Amended) The method according to claim 12, wherein the second signaling message includes the same DHO related instructions and associated parameters as said first~the signaling message.

15.   (Current Amended) The method according to claim 14, wherein said~the second signaling message further comprises~includes a destination

node transport layer address of the first DHO tree node that is ~~the~~ an intended

recipient of ~~said~~ the DHO related instructions.

16.   (Current Amended) The method according to claim 15, wherein

~~said~~ the destination node transport layer address is an IP address.

17.   (Current Amended) The method according to claim 15, wherein

~~said~~ the destination node transport layer address is an ATM address.

18.   (Previously Presented) The method according to claim 1, wherein

the mobile telecommunication network is a UMTS network.

19.   (Current Amended) The method according to claim 1, ~~wherein the~~

~~method comprises the~~ further ~~step of~~ comprising:

~~[[-]]~~using implicit information at the first DHO tree node in data received

from a hierarchically lower DHO tree node to trigger ~~the~~ an initiation of DHO

functionality for a macro diversity leg towards the hierarchically lower DHO

tree node~~, wherein said DHO functionality comprises splitting and combining of~~

~~data flows~~.

20.   (Currently Amended) The method according to claim 19, wherein

~~said~~ the implicit information comprises a source IP addresses and a source

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U.S. Serial No. 10/583,894

Atty. Docket No.: 2380-1325
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User Datagram Protocol (UDP) port retrieved from ~~the~~ an IP header and ~~the~~ a UDP header of a received uplink packet.

21. (Current Amended) The method according to claim 20, wherein ~~said~~ the source IP address is different from ~~the~~ a source IP addresses used for packets received from a hierarchically higher DHO tree node and other hierarchically lower DHO tree nodes than ~~said~~ the hierarchically lower DHO tree node from which ~~said~~ the uplink packet was received.

22. (Currently Amended) The method according to claim 20, ~~wherein the method comprises the~~ further ~~step of~~ comprising:

~~[[ ]]~~using ~~said~~ the retrieved source IP address and User Datagram Protocol (UDP) port at the first DHO tree node as ~~the~~ destination IP address and destination UDP port for the split downlink data flow for ~~said~~ the macro diversity leg towards ~~said~~ the hierarchically lower DHO tree node.

23. (Current Amended) The method according to claim 1, ~~wherein the method comprises the~~ further ~~step of~~ comprising:

~~[[ ]]~~terminating the DHO functionality at the first DHO tree node for a macro diversity leg towards a hierarchically lower DHO tree node based on ~~the~~ an absence of expected uplink data packets from ~~the~~ a hierarchically lower DHO tree node.

24.   (Current Amended) The method of claim 1, ~~wherein the method comprises the~~ further ~~step of~~ comprising:

~~[[-]]~~terminating the DHO functionality at the first DHO tree node for a macro diversity leg towards a hierarchically lower DHO tree node based on ~~the~~ a reception of an indication that ~~said~~ a hierarchically lower DHO tree node no longer uses the macro diversity leg.

25.   (Currently Amended) The method of claim 24, wherein said indication is a Destination Unreachable Internet Control Message Protocol~~[[,]]~~ (ICMP)~~[[,]]~~ message.

26.   (Current Amended) A computer program product directly loadable into the internal memory of a computer within a Diversity Handover node (DHO) ~~such as~~ including a Radio Network Controller or a Node B, in a mobile telecommunication network, wherein a computer program is provided therein, the computer program comprising the software code portions ~~for performing~~ to causing the RNC or the Node B to perform the ~~steps~~ method of claim 1.

27.   (Current Amended) A ~~computer program product stored on a~~ computer usable medium, ~~comprising~~ in which a readable program is recorded therein, the readable program ~~for causing~~ causes a computer, within a Diversity Handover node ~~such as a~~ including a Radio Network Controller or a

Node B, in a mobile telecommunication network, to control an execution of the ~~steps~~ method of claim 1.

28.   (Currently Amended) A Radio Network Controller, {RNC}, for providing diversity handover, {DHO}, related instructions to a first DHO tree node~~, e.g. a Node B~~, that is a part of or is planned to be a part of a DHO connection in a mobile telecommunication network, wherein the DHO functionality is distributed to one or a plurality of DHO nodes~~, such as a Radio Network Controller,~~ the RNC~~,~~ and its connected Node Bs, in said network, the RNC comprising:

means for including in a first signaling message one or more transport layer addresses and one or more transport bearer reference parameters in order to direct one or more data flows between the RNC and a mobile station of the DHO connection~~,~~; and

means for sending ~~said~~ the first signaling message to the first DHO tree node,

wherein the DHO functionality performed by the first DHO tree node comprises splitting of downlink data flows and combining of uplink data flows.

29.   (Current Amended) The RNC according to claim 28, wherein the means for including comprises:

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means for replacing the transport layer address and transport bearer reference parameter of ~~an~~ the RNC by ~~the~~ transport layer address and transport bearer reference parameter of a DHO tree node that is hierarchically higher than ~~said~~ the first DHO tree node in a regular signaling message sent to the first DHO tree node in order to direct a data flow between ~~said~~ the first DHO tree node and ~~said~~ the higher DHO tree node in ~~the~~ a DHO tree node hierarchy.

30.   (Current Amended) The RNC according to claim 28, wherein the means for including comprises:

means for including one or more transport layer addresses and one or more transport bearer reference parameters of one or more DHO tree node(s) that are hierarchically lower than the first DHO tree node in a signalling message sent to the first DHO tree node in order to direct one or more data flows between ~~said~~ the first DHO tree node and said one or more lower DHO tree node(s) in ~~the~~ a DHO tree node hierarchy.

31.   (Currently Amended) The RNC according to claim 28, wherein ~~said~~ the transport layer addresses are IP addresses and ~~said~~ the transport bearer reference parameters are User Datagram Protocol (UDP) ports.

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32.   (Currently Amended) The RNC according to claim 28, wherein ~~said~~ the transport layer addresses are ATM addresses and ~~said~~ the transport bearer reference parameters are Served User Generated Reference (SUGR) parameters.

33.   (Current Amended) The RNC according to claim 28, further comprising:

means for including in the first signaling message Quality of Service (QoS) indications for the one or more data flow(s) to be directed.

34.   (Current Amended) The RNC according to claim 28, further comprising:

means for including timing parameters in the first signaling message to be used in the uplink combining procedure in the DHO tree node receiving ~~said~~ the first signaling message.

35.   (Current Amended) The RNC according to claim 28, further comprising:

means for including a time indication in the signaling message indicating when the DHO related instructions in the signalling message are to be effectuated in the DHO tree node receiving ~~said~~ the first signaling message.

36.   (Currently Amended) The RNC according to claim 35, wherein ~~said~~ the time indication is a connection frame number[[,]] (CFN)[[,]] pertaining to a Dedicated Channel Frame Protocol[[,]] (DCH FP)[[,]] in a UMTS Terrestrial Radio Access Network[[,]] (UTRAN).

37.   (Currently Amended) The RNC according to claim 28, wherein ~~said~~ the first signaling message is a Node B Application Part[[,]] (NBAP)[[,]] message.

38.   (Current Amended) The RNC according to claim 28, wherein the means for sending ~~said~~ the first signaling message is triggered by a second signaling message received from a second RNC.

39.   (Currently Amended) The RNC according to claim 38, wherein the second signaling message is a Radio Network Subsystem Application Part (RNSAP) message.

40.   (Current Amended) The RNC according to claim 38, wherein the second signaling message includes the same DHO related instructions and associated parameters as ~~said~~ the first signaling message.

41.   (Current Amended) The RNC according to claim 40, wherein ~~said~~ the second signaling message further comprises a destination node transport

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layer address of the first DHO tree node that is the intended recipient of ~~said~~ the DHO related instructions.

42.   (Current Amended) The RNC according to claim 41, wherein ~~said~~ the destination node transport layer address is an IP address.

43.   (Current Amended) The RNC according to claim 41, wherein ~~said~~ the destination node transport layer address is an ATM address.

44.   (Previously Presented) The RNC according to claim 28, wherein the mobile telecommunication network is a UMTS network.

45.   (Currently Amended) A Diversity Handover, {DHO}, node~~, e.g. a Node B,~~ that is a part of or is planned to be a part of a DHO connection in a mobile telecommunication network, wherein the DHO functionality is distributed to one or ~~a plurality of~~ more DHO nodes~~, such as~~ including a Radio Network Controller, {RNC}, and its connected Node Bs, in ~~said~~ the network, the DHO node comprising:

means for using implicit information in data received from a hierarchically lower DHO tree node to trigger ~~the~~ an initiation of the DHO functionality for a macro diversity leg towards the hierarchically lower DHO tree node,

wherein ~~said~~ the DHO functionality performed by the DHO node comprises splitting downlink data flows from the RNC to a mobile station and combining ~~of~~ uplink data flows from the mobile station to the RNC.

46.   (Currently Amended) The DHO node according to claim 45, wherein ~~said~~ the implicit information comprises a source IP addresses and a source User Datagram Protocol (UDP) port retrieved from ~~the~~ an IP header and ~~the~~ an UDP header of a received uplink packet.

47.   (Current Amended) The DHO node according to claim 46, wherein ~~said~~ the source IP address is different from ~~the~~ a source IP addresses used for packets received from a hierarchically higher DHO tree node and other hierarchically lower DHO tree nodes than ~~said~~ the hierarchically lower DHO tree node from which ~~said~~ the uplink packet was received.

48.   (Current Amended) The DHO node according to claim 46, ~~wherein the DHO node comprises the~~ further comprising:

means for using ~~said~~ the retrieved source IP address and UDP port as the destination IP address and destination UDP port for the split downlink data flow for ~~said~~ the macro diversity leg towards said hierarchically lower DHO tree node.

49.   (Current Amended) The DHO node according to claim 45, ~~wherein the DHO node comprises the~~ further comprising:

means for terminating ~~the~~ DHO functionality for a macro diversity leg towards a hierarchically lower DHO tree node based on ~~the~~ an absence of expected uplink data packets from the hierarchically lower DHO tree node.

50.   (Current Amended) The DHO node of claim 45, ~~wherein the DHO node comprises the~~ further comprising:

means for terminating ~~the~~ DHO functionality for a macro diversity leg towards a hierarchically lower DHO tree node based on ~~the~~ a reception of an indication that ~~said~~ the hierarchically lower DHO tree node no longer uses the macro diversity leg.

51.   (Currently Amended) The DHO node of claim 50, wherein said indication is a Destination Unreachable Internet Control Message Protocol~~[[,]]~~ (ICMP)~~[[,]]~~ message.

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